



INDIA RANKINGS 2021

NATIONAL INSTITUTIONAL RANKING FRAMEWORK

Methodology for Ranking of Academic Institutions in India

(RANKING METRICS FOR RESEARCH INSTITUTION)



Ministry of Human Resource Development

Summary of Ranking Parameters and Weightages- 2021

(Research Institution)

Sr. No.	Parameter	Marks	Weightage
1	Metric for Quantitative Research	100	0.30
2	Metric for Qualitative Research	100	0.30
3	Metric for Students and Faculty Contribution	100	0.20
4	Outreach and Inclusivity	100	0.10
5	Perception	100	0.10

S.No.	Parameters	Marks
1.	Metric for Quantitative Research Ranking weight: 0.30	100
	A. Combined metric for Publications (PU): 50 marks B. Combined metric for Citations Index (CI): 25 marks C. Footprint of Projects and Professional Practice (FPPP): 25 marks	
2.	Metric for Qualitative Research Ranking weight: 0.30	100
	A. Combined metric for publications in 1st Quartile JCR(JCRQ1): 30 marks B. Combined metric for Publications in Top 25 (TOP25): 30 marks C. IPR and Patents: Published and Granted (IPR): 20 marks D. H- Index (HI): 20 marks	
3.	Metric for Students and Faculty Contribution Ranking weight: 0.20	100
	A. Combined metric for Faculty with PhD (or equivalent) and Experience (FQE): 40 marks B. Student Strength including Doctoral Students (SS): 30 marks C. Metric for Number of Ph.D. Students Graduated (GPHD): 30 marks	
4.	Outreach and Inclusivity (OI) Ranking weight: 0.10	100
	A. Percentage of Students from other States/Countries (Region Diversity RD): 30 marks B. Percentage of Women (Women Diversity WD): 30 marks C. Percentage of SC/ST Students(SCTS): 20 marks D. Facilities for Physically Challenged Students (PCS): 20 marks	
5.	Perception (PR) Ranking weight: 0.10	100
	A. Peer Perception: Employers & Academic Peer (PR): 100 marks	

1. Metric for Quantitative Research : 100 marks

- **Ranking weight: 0.30**

- **Overall Assessment Metric:**

$$\text{QNR} = \text{PU (50)} + \text{CI (25)} + \text{FPPP (25)}$$

- **Component metrics based on :**

A. Combined metric for Publications : PU

B. Combined metric for Citations Index : CI

C. Footprint of Projects and Professional Practice : FPPP

A. Combined metric for Publications (PU): 50 marks

- $PU = 50 \times f(P/F_{RQ})$
- F_{RQ} is the maximum of nominal number of faculty members as calculated on the basis of a required FSR of 1:15 or the available faculty in the institution.
- **Sources: Third party sources.**

B. Combined metric for Citations Index (CI): 25 marks

- $CI = 25 \times f (CC/FRQ)$
- Here CC is Total Citation Count over previous three years.
- FRQ is the maximum of nominal number of faculty members as calculated on the basis of a required FSR of 1:15 or the available faculty in the institution.
- *Primary Data: Third Party Sources.*

C. Footprint of Projects and Professional Practice (FPPP): 25 marks

- **FPPP = FPR + FPC**
- **FPR = 18.75 × f (RF)**
- RF is average annual research funding earnings (amount actually received in rupees) per faculty at institute level in previous three years.
- **FPC = 6.25 × f (CF)**
- CF is average annual consultancy amount (amount actually received in rupees) per faculty at institute level in previous three years.

2. Metric for Qualitative Research (QLR): 100 marks

- **Ranking weight: 0.30**
- **Overall Assessment Metric:**

$$\text{QLR} = \text{JCRQ1}(30) + \text{TOP 25 (30)} + \text{IPR}(20) + \text{HI (20)}$$

The component metrics explained on following pages.

- A. Combined metric for publications in 1st Quartile: JCRQ1**
- B. Combined metric for Publications in Top 25: TOP25**
- C. IPR and Patents: Published and Granted: IPR**
- D. H- Index: HI**

A. Combined metric for publications in 1st Quartile JCR(JCRQ1): 30 Marks

- **JCRQ1 = $30 \times f(\text{JCRQ1}/F_{RQ})$**
- *JCRQ1 is weighted number of publications in 1st Quartile as ascertained from suitable third party sources.*
- *F_{RQ} is the maximum of nominal number of faculty members as calculated on the basis of a required FSR of 1:15 or the available faculty in the institution.*

- **Sources: Third party sources.**

B. Combined metric for Publications in Top 25 (TOP25): 30 marks

- **TOP25 = 30 × f (TOP25P/P)**
- *P is weighted number of publications as ascertained from suitable third party sources.*
- TOP25P: Number of citations in top 25 percentile averaged over the previous three years.
- *Primary Data: Third Party Sources.*

C. IPR and Patents: Patents Published and Granted (IPR): 20 marks

- **$IPR = IPG + IPP$**

$IPG = 10 \times f(PG)$

- PG is the number of patents granted over the previous three years.

$IPP = 10 \times f(PP)$

- PP: No. of patents published over the previous three years.

- *Primary Data: Third Party Sources.*

D. H-Index:20 marks

H-Index=20*HI

HI is weighted number of H Index as ascertained from suitable third party sources (Web of science and Scopus)

3. Metric for Students and Faculty Contribution (SFC) : 100 marks

- **Ranking weight: 0.20**
- **Overall Assessment Metric:**
- **$SFC = FQE(40) + SS(30) + GPHD(30)$**
- **The component metrics are explained on the following pages:**
 - A. Combined metric for Faculty with PhD (or equivalent) and Experience: FQE**
 - B. Student Strength including Doctoral Students: SS**
 - C. Metric for Number of Ph.D. Students Graduated: GPHD**

A. Combined Metric for Faculty with PhD (or equivalent) and Experience (FQE): 40 marks

- $FQ = 20 \times (F_{RA}/95)$, $F_{RA} < 95\%$;
- $FQ = 20$, $F_{RA} \geq 95\%$.
- *Here F_{RA} is the percentage of Faculty with Ph.D. (or equivalent qualification) with respect to the total no. of faculty required or actual faculty whichever is higher, in the previous year.*

F1=Fraction with Experience up to 8 years;

F2= Fraction with Experience between 8+ to 15 years;

F3=Fraction with Experience > 15 years.

- **$FE = 6 \min(3F1, 1) + 6 \min(3F2, 1) + 8 \min(3F3, 1)$**

Rationale: Full marks for a ratio of 1:1:1

- **$FQE = FQ + FE$**
- *Primary Data: Faculty List in the Prescribed Format.*

B. Student Strength including Ph.D. students (SS): 30 Marks

- $SS = f(N_T, N_E) \times 20 + f(N_P) \times 10$
- The functions $f(N_T, N_E)$ and $f(N_P)$ are functions to be determined by NIRF.
- N_T : Total sanctioned approved intake in the institution considering all UG and PG programs of the institution.
- N_E : Total number of students enrolled in the institution considering all UG and PG Programs of the institution.
- N_P = Total number of students enrolled for the doctoral program till previous academic year.
- **Primary Data: To be provided in a prescribed Format.**

C. Metric for Number of Ph.D Students Graduated (GPHD): 30 Marks

- **GPHD = 30 × f(N_{phd})**
- N_{phd} = Average number of Ph.D students graduated (awarded Ph.D) over the previous three years.
- ***Primary Data: Number of graduating Ph.D. Students as reflected in the approved Annual Report/Convocation Report to be provided in the prescribed format.***

4. Outreach and Inclusivity (OI): 100 marks

- **Ranking weight: 0.10**
- **Overall Assessment Metric: $OI = RD(30) + WD(30) + ESCS(20) + PCS(20)$**
- **The component metrics are explained on following pages:**
 - A. Percentage of Students from other States/ Countries (Region Diversity): RD**
 - B. Percentage of Women (Women Diversity): WD**
 - C. Percentage of SC/ST Students: SCTS**
 - D. Facilities for Physically Challenged Students: PCS**

A. Percentage of Students from other States/ Countries (Region Diversity RD): 30 marks

- **RD = 25 × fraction of total students enrolled from other states + 5 × fraction of students enrolled from other countries**
- *Primary Data: To be provided in the prescribed format.*

B. Percentage of Women (Women Diversity WD): 30 marks

- $WD = 15 \times (N_{WS}/50) + 15 \times (N_{WF}/20)$
- N_{WS} are the percentage of Women students.
- N_{WF} are the percentage of Women Faculty including the women members in senior administrative positions, such as Heads of Departments, Deans or Institute Heads.
- Expectation: 50% women students and 20% women faculty.
- *Primary Data: To be provided in the prescribed format.*

C. Percentage of SC/ST Students (SCTS): 20 marks

- $SCTS = 20 \times f(N_{scts})$
- N_{scts} is the percentage of UG students being provided full tuition fee reimbursement by the institution to pursue their degree programs.
- *Primary Data: To be provided by the institution in the prescribed format.*

D. Facilities for Physically Challenged Students (PCS): 20 marks

- **PCS = 20 marks, if the Institute provides full facilities for physically challenged students, as outlined.**

Else, in proportion to facilities.

- Basis: Verifiable Responses to Questions.
- *Primary Data: To be provided in a prescribed format.*

5. Perception (PR) – 100 marks

- **Ranking weight: 0.1**
- **Overall Assessment Metric: PR = 100**
- **Component metrics are explained in the following pages:**
 - A. Peer Perception: Employers & Academic Peers: (PR)**

A. Peer Perception: Employers & Academic Peer (PR) : 100 marks

- This is to be done through a survey conducted over a large category of Employers, Professionals from Reputed Organizations and a large category of academics to ascertain their preference for graduates of different institutions.
- Comprehensive list will be prepared taking into account various sectors, regions, etc.
- Lists to be updated periodically.